

# JIACHENG LIANG

## Curriculum Vitae

### CONTACT

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Homepage: [552jc.github.io/ljc552.github.io](https://552jc.github.io/ljc552.github.io)

Department of Mathematics, M5021  
College of Science, Southern University of Science and Technology  
Xueyuan Avenue 1088  
Shenzhen, Guangdong, China

### RESEARCH INTERESTS

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The orientation theory from Thom spectra, higher algebra, reformulations of chromatic homotopy theory by formal (spectral) algebraic geometry, spectral moduli problems, and various intersections between homotopy theory and algebraic geometry.

### 🎓 EDUCATION

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**Southern University of Science and Technology**, Shenzhen, China 2022 – 2024(expected)

*Master* in Mathematics, expected June 2024

Advisor: Yifei Zhu

**Sichuan University**, Chengdu, Sichuan, China 2018 – 2022

*B.S.* in Physics

### SHORT-TERM VISITS

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**Southern University of Science and Technology**, Shenzhen, China 2021.11 – 2022.5

Visiting student

Advisor: Yifei Zhu

### SELECTED TALKS

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**The  $\sigma$ -orientation and its AHR  $E_\infty$ -refinement**  $Mstring \rightarrow tmf$  August 17, 2023

IWoAT Summer School 2023: Operads, spectra, and multiplicative structures

BIMSA, Beijing, China

**Thom spectra, infinite loop spaces, generalized cocycles, and the  $\sigma$ -orientation** May 23, 2023

Graduate Topology Seminar at SUSTech

**Sites, Sheaves, Formal Groups and Stacks** December 06, 2022

Graduate Topology Seminar at SUSTech

**Elliptic curves and Abelian varieties** May 30, 2022

Undergraduate topology seminar, Sichuan University

**Monads,  $E_\infty$ -spectra and model categories** December 01, 2021

Graduate Topology Seminar at SUSTech

**The Stable homotopy theory and EKMM framework** November 18, 2021

Graduate Topology Seminar at SUSTech

**Bousfield Localization and  $K(n)$ -local stable homotopy theory** March 22, 2021

Undergraduate topology seminar, Sichuan University

<b>Landweber exact theorem and Lubin-Tate spectra</b> Undergraduate topology seminar, Sichuan University	November 02, 2020
<b>Quillen's theorem: complex cobordism and formal groups</b> Undergraduate topology seminar, Sichuan University	September 30, 2020
<b>MO is a graded E-M spectrum by calculating Steenrod operations</b> Undergraduate topology seminar, Sichuan University	June 21, 2020
<b>Characteristic classes from viewpoint of algebraic topology</b> Undergraduate topology seminar, Sichuan University	March 13, 2020
<b>Brown representability theorem and generalized cohomology theories</b> Undergraduate topology seminar, Sichuan University	December 15, 2019
<b>Obstruction theory in algebraic topology</b> Undergraduate topology seminar, Sichuan University	September 08, 2019
<b>Serre spectral sequence and homotopy groups of spheres</b> Undergraduate topology seminar, Sichuan University	June 25, 2019
<b>A proof of Non-embeddability from Klein bottle into <math>\mathbf{R}^3</math></b> Undergraduate topology seminar, Sichuan University	May 8, 2019

## ORGANIZATION

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| • <b>Graduate Topology Seminar</b> at SUSTech                 | 2021-present |
| • <b>Undergraduate topology seminar</b> at Sichuan University | 2019-2022    |

## TEACHING

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- Teaching assistant for MA201b(Ordinary Differential Equation), Spring 2023.
- Grader for MAT8021, Spring 2023 (Algebraic topology).

## MISCELLANEOUS

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- **Blog** about algebraic topology: [www.zhihu.com/people/liang-jia-cheng-60-11](http://www.zhihu.com/people/liang-jia-cheng-60-11)
- Placed third in *Table Tennis Freshman Competition 2022* at department of mathematics, SUSTech